Effectiveness of Schema Therapy in Early Maladaptive Schemas and Insecure Attachment Styles in Heroin Dependent People

Abstract

Objective: The aim of this study was to determine the effectiveness of schema therapy in early maladaptive schemas and insecure attachment styles among heroin-dependent men. **Method:** A quasi-experimental research design along with pre-test/post-test and control group was employed for the conduct of this study. The number of 44 male heroin patients was selected and randomly assigned to two experimental (n = 22) and control (n = 22) groups. In this study, the experimental group received ten 90-minute sessions of schema therapy and the control group was placed on the waiting list. The participants filled out Young's Schema Questionnaire (Short Form) and Adult Attachment Styles Questionnaire in the pre-test and post-test phases. **Results:** The results of this study showed that schema therapy could significantly reduce early maladaptive schemas as well as avoidant and ambivalent insecure attachment styles compared to the control group. **Conclusion:** Schema therapy can reduce early maladaptive schemas and avoidant and ambivalent insecure attachment styles in heroin-dependent men.

Keywords: schema therapy, early maladaptive schemas, insecure attachment styles

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Introduction

The use of addictive substances and dependence on them are a chronic and recurrent phenomenon associated with serious physical, financial, family, and social harms (Rooke, Hine, & Thorsteinsson, 2008). One of the important issues that researchers have argued in prevention of addiction relapse is psychological factors. Research suggests that there are many personality factors effective in drug use tendency (Cramer, 2000; Nickel, & Egle, 2006). One of the important issues regarding drug addiction is the role of early maladaptive schemas. According to Young (1994), one of the most important factors in the formation of personality problems and psychological disorders is maladaptive schemas that are developed as a result of childhood experiences. These schemas persist in the course of life, are concerned with the self and others, and are extremely inefficient. Young (1994) argues that some of these schemas, especially those resulting from childhood bad experiences, may be the core of personality disorders and many psychological disorders. Brummett (2007) examined 121 outpatient clients under methadone maintenance treatment and found that early maladaptive schemas had an association with severity of addiction. Shaghaghi, Saffarinia, Iranpour, & Soltani-Nejad (2011) showed that addicts suffer from high levels of maladaptive schemas. Oveisi (2012) compared early maladaptive schemas between opiate dependent and non-opiate male patients in Zahedan and showed that the drug dependent subjects obtained higher scores in schemas of rejection, impaired autonomy and performance, and recognition-seeking. Mansoori Jalilian & Yazdanbakhsh (2014) showed that maladaptive schemas, such as mistrust, misbehavior, dependence, and insufficient self-discipline are among the predictors of substance abuse tendency among students.

Another factor that may be involved in drug dependence is attachment styles. Ainsworth et al. (2015) identified three safe, avoidant, and ambivalent attachment styles. Attachment styles affect the methods through which one gets exposed to stressful situations (Kobak, & Sceery, 1988). Since one of the primary functions of attachment is the intrapersonal regulation of emotional experiences, people with a secure attachment style seek social support to deal with emotional tensions. However, individuals with insecure attachment tend to use maladaptive approaches such as alcohol drinking or drug use as defensive styles to overcome their unpleasant mood states and situations (McNally, Palfai, Levine, & Moore, 2003). Kheiri, Abdollahi, & Shahgholian (2013) showed that addicted people gained higher scores in avoidant and ambivalent insecure attachment styles than healthy ones. Kassel, Wardle, & Roberts (2007) found a significant inverse relationship between the secure attachment style and the probability of drug use in students. Besharat, Ghafouri, & Rostami (2007) showed that there is a significant difference between patients with opioid disorders and non-addicts in terms of attachment styles; they also showed that there is a significant positive correlation between insecure attachment styles and severity of opioid use disorders. In this regard, Karami, & Jashnpour (2017) also

showed that the mean scores of avoidant and ambivalent attachment styles in substance abuse patients are higher than those in normal ones. This finding has been confirmed in other studies, such as Williams, & Kelly (2005), Thorberg, & Lyvers (2010), Paulk, & Zayac (2013). In another study conducted by Kassel, Wardle, & Robert (2014), it has been reported that insecure attachment styles are among the most important predictors of substance use.

So far, various treatments have been performed on patients with addictive disorders, but each of these methods has been somewhat effective and has had varying rates of recurrence and relapse of substance use. The therapeutic schema developed by Young et al. is a modern and integrated therapy mainly based on the development and extension of concepts and methods of classical cognitive-behavioral therapy. The therapeutic schemas have integrated the principles and foundations of cognitive-behavioral school of Gestalt's attachment, object relations theory, constructivism, and psychoanalysis into a valuable therapeutic and conceptual model (Young, Klasko, & Vishar, 2007). Schema therapy can be a selective treatment for many disorders, especially those with long-term cognitive temperament problems. In addition, it is a good alternative for the treatment of criminal offenders, as well as the treatment and prevention of relapse among drug users. In this method, therapists make a bond with patients through cognitive, emotional, behavioral, and interpersonal strategies to combat schemata; and treat patients in an empathic way with reasons and necessities. Various research findings have shown that schema therapy can reduce the severity of maladaptive schemas (Jahangir Salehi, Ashayeri, & Pasha Sharifi, 2015; Tajik-Zadeh Fakhri, Zare, Nazari, & Afshari, 2015).

In a research project, Cecero, Nelson, & Gillie (2004) showed that maladaptive schemas of emotional inhibition, subjugation and emotional deprivation in adulthood jeopardize secure attachment; although some studies, e.g. Khosravi, Khezri Moghadam, & Abedi (2015); Lawson, Barnes, Madkins, & Francois-Lamonte (2006); and Wilhelmsson Göstas, Wiberg, Brus, Engström, & Kjellin (2014) have indicated that the therapeutic schema influence secure attachment styles and reduced avoidant and ambivalent attachment styles. However, Amani, Snayi Zakir, Nazari, & Namdari (2011) showed that therapeutic attachment was effective in reducing insecure attachment styles, but the case did not hold true regarding schema therapy.

Therefore, the present study aims to identify maladaptive schemas in heroin addicts using the schema-based approach, which is a modern treatment for chronic disorders, such as drug addiction. In addition, the effectiveness of this approach on maladaptive schemas and insecure attachment styles will be assessed in these patients. Therefore, the present research seeks to respond to the following research question: Is therapeutic schema effective in improving the early maladaptive schemas and insecure attachment styles in heroin dependent people.

Method

Population, sample, and sampling method
The present study employed a quasi-experimental research design along with pre-test/ post-test and control group. Then, heroin-dependent men were randomly assigned to experimental and control groups. The statistical population of this study included all heroin dependent men who had presented to an addiction treatment clinic in Tehran between April, 2016 and June, 2016. From among the said population, a 90-participant sample was selected. After screening, 44 participants were selected and randomly assigned to the experimental and control groups (22 members in each group) using clinical interviews and according to the entry criteria.

The entry criteria included the diagnosis of heroin dependence by a psychologist or psychiatrist, willingness to attend the therapeutic sessions, the minimum education level of first grade of high school, and the minimum age of 18 and maximum of 54 years. On the other hand, the exit criteria were suffering from other psychiatric disorders (such as schizophrenia, obsessive compulsive disorder, and personality disorders), suffering from neurological disorder, suffering from mental retardation, alcohol consumption, taking anti-craving drugs or detoxification, taking antidepressants, and resigning attending the sessions.

Instruments
1. Young Schema Questionnaire-Short Form: This is a self-report tool for measuring schemas. It consists of 75 items and determines 15 schemas in 5 domains. Its short form is used more in research because its completion takes less time. Several studies have confirmed the psychometric properties of this instrument (Stopa, Thorne, Waters, & Preston, 2001). In Iran, Yousefi, & Shirbaghi (2010) confirmed the psychometric properties of the Persian version of this questionnaire. They used two methods of Cronbach's Alpha and split half. On the whole, the Cronbach's alpha coefficient and the split half coefficient of this scale were 0.99 and 0.86, respectively. These values were obtained equal to 0.87 and 0.84 in girls and 0.84 and 0.81 in boys. In this study, Cronbach's alpha coefficient was obtained equal to 0.89.

2. Hazen & Shaver's Adult Attachment Scale: This scale has been validated by Basharat (2011) on Tehran University students. The scale consists of 15 items and measures three styles of secure, avoidant, and ambivalent attachments on a 5-point Likert scale (very low = 1, low = 2, average = 3, high = 4, and very high = 5). The minimum and maximum scores are 5 and 25, respectively. The Cronbach's alpha coefficients of the secure, avoidant, and ambivalent attachment subscales on a student sample have been reported to be equal to 0.85, 0.84 and 0.85, respectively. In this research, only the items regarding insecure attachment styles of avoidant and ambivalent dimensions

were used. In this study, Cronbach's alpha coefficients for avoidant and ambivalent attachment scales were 0.89 and 0.87, respectively.

Procedure
After sample selection and grouping, schema therapy sessions were performed on the experimental group in ten -minute sessions and the control group was placed on the waiting list. The details of intervention in the group schema therapy were as follows.

In the first session, after the acquaintance and establishment of a good relationship, the importance and purpose of expressive schema therapy and the clients' problems were formulated in the form of schema therapy approach and the pre-test was administered. In the second session, the objective evidence confirming or rejecting schemas was examined based on evidence of current and past life, and the current schema dimension and the healthy schema were discussed. In the third session, cognitive techniques, such as schema validation test, a new definition of evidence supporting the existing schema, and the assessment of the advantages and disadvantages of coping styles were taught. In the fourth session, the concept of healthy adults was strengthened in the patient's mind; their unmet emotional needs were identified; and the solutions for eliminating the blocked affects and emotions were trained. In the fifth session, the establishment of a healthy relationship and conduct of an imaginary conversation were taught. In the sixth session, empirical techniques such as mental imagery, problematic situations, and the confrontation with the most problematic events were discussed. In the seventh session, therapeutic relationships, relationships with important people of life, and role play were taught. In the eighth session, the conduct of healthy behaviors through role play and fulfillment of homework related to new behavioral patterns were taught. In the ninth session, the advantages and disadvantages of healthy and unhealthy behaviors were examined and some strategies were discussed to overcome the barriers to behavioral change. In the tenth session, the contents of the previous sessions were briefly reviewed, the learned strategies were practiced, and, then, the post-test was administered.

Results
The descriptive statistics of the research variables have been presented in Table 1 for each group and test type.

Table 1: Descriptive statistics of the research variables for each group and test type

Variables	Test type	Groups	Mean	SD
Early maladaptive schema	Pre-test	(experimental)(Control)	(10.14)(10.66)	(3.80)(4.21)
	Post-test	(experimental)(Control)	(4.57)(11.17)	(4.68)(4.17)
Avoidant insecure attachment style	Pre-test	(experimental)(Control)	(3.87)(3.00)	(1.06)(2.14)
	Post-test	(experimental)(Control)	(3.00)(3.00)	(1.65)(2.17)
Ambivalent insecure attachment style	Pre-test	(experimental)(Control)	(3.07)(2.53)	(1.91)(1.92)
	Post-test	(experimental)(Control)	(2.40)(2.47)	(1.68)(1.59)

Multivariate covariance analysis should be used to evaluate the effectiveness of schema therapy. One of the assumptions of using this analysis is the normal distribution of data. The results of Kolmogorov-Smirnov test showed that this assumption has been met in the early maladaptive schema ($Z = 1.23$, $P > 0.05$), avoidant insecure attachment style ($Z = 0.99$, $P > 0.05$), and ambivalent insecure attachment style ($Z = 1.17$, $P > 0.05$). The investigation of the other assumption of covariance analysis, i.e. homogeneity of regression coefficients, showed that this assumption has been satisfied in early maladaptive schemas ($F = 4.90$, $P > 0.05$), avoidant insecure attachment style ($F = 3.20$, $P > 0.05$), and ambivalent attachment style ($F = 2.12$, $P > 0.05$). In addition, the equality of error variances was investigated by Levene's test. The results showed that this assumption has also been met in early maladaptive schemas ($F = 3.94$, $P > 0.05$), avoidant insecure attachment style ($F = 5.41$, $P > 0.05$), and ambivalent insecure style ($F = 2.43$, $P > 0.05$). Therefore, multivariate covariance analysis was run and the results showed that there is a significant difference between the linear combination of the variables in the two groups (Effect Size = 0.80, $P < 0.001$, $F = 80.06$, Wilks' lambda = 0.22). In other words, schema therapy has been effective in the linear combination of variables. To investigate the patterns of difference, univaraite covariance analysis was run as presented in table 2.

Table 2: Univaraite covariance analysis examining difference patterns of schema therapy in the research variables

Variables	Sum of squares	Df	Mean Square	F	Sig.	Effect size
Early maladaptive schema	21612.09	1	21612.09	126.25	0.0005	0.99
Avoidant insecure attachment style	8.49	1	8.49	3.63	0.05	0.32
Ambivalent insecure attachment style	7.20	1	7.20	3.23	0.05	0.26

Therefore, based on the results, it can be argued that schema therapy reduces the early maladaptive schemas and avoidant and ambivalent insecure attachment styles in heroin-dependent individuals.

Discussion and Conclusion

The aim of this study was to investigate the effectiveness of schema therapy in early maladaptive schemas and insecure attachment styles among heroin dependent individuals. The results showed that schema therapy could reduce early maladaptive schemas in heroin-dependent individuals. This result was consistent with that of previous research findings (Jahangiri et al., 2015; Tajik-Zadeh et al., 2015; Giesen-Bloo et al. 2006; Ghaderi et al. 2016; and Rozbehi et al. (2017). Early maladaptive schemas, as ineffective cognitive foundations, effective in the perception of phenomena and the formation of individual's schemas and can produce psychological and social harms. Therefore, addiction, as one of the damages that can affect the relationship of an individual with the

self and others, can be formed and organized on the basis of such inefficient foundations. Schemes contain cognitive, emotional, and behavioral components. When early maladaptive schemas are activated, some levels of emotion are triggered and directly or indirectly lead to various forms of psychological disturbances, such as depression, anxiety, inability to work, substance abuse, interpersonal conflicts, and the like. Maladaptive schemas do not directly lead to any specific disorder, but increase one's vulnerability to disturbances (Hallinger, & Whitburn, 2005). A significant number of people with substance abuse abstain from inefficient beliefs and attitudes over a long period of time, and these beliefs and attitudes become more severe with chronic consumption (Risso et al., 2003). Many clients with substance abuse have specific patterns of thinking that lead to the persistence of their disorder and may prevent them from any changes (Beck et al., 1993). These patterns of thinking include the beliefs associated with expectations, expectations of beliefs, and the individual's beliefs about substance use. These beliefs include thoughts and ideas about pleasure, problem-solving, prominence, and escape that may have been formed in the childhood period (Beck et al., 1993).

Substance abuse is thought to be one of the coping strategies that a person uses to avoid the negative effects of stimulated maladaptive schemas. For example, Young believes that maladaptive schemas, such as mistrust that pertains to the domain of rejection are observed in cold, isolated, bad-tempered, and unpredictable families. Thus, the individuals who are brought up in such family spaces may suffer maladaptive schemas. Therefore, they turn to drug use because they believe in the vulnerability of others and the mistrust to other and they want to seek solace in difficult situations and problem-solving settings.

The purpose of the schema therapy is to modify the individuals' maladaptive schemas to help them adapt themselves with new experiences that do not support the early schemas and create more adaptive behaviors. (Young, Klasko, & Vishar, 2007). In support of this hypothesis, the bilateral schema therapy (Ball, 1998; Wald and Young, 2000) considers addiction as an initial disorder that also activates schemas and adaptive avoidance as factors that underlie the mechanism of continuity or the risk of relapse in people with significant personality problems. Schemas may be the core of pathology and mental disorders. Hence, modifying schemas can be an alternative to achieve long-term clinical recovery (Ahmadian Gorji, Fati, Asgharnejad Farid, & Malakouti, 2008).

Moreover, the results of this study showed that schema therapy led to the decrease of avoidant and ambivalent insecure attachments. This finding is in line with the research findings reported by Khosravi et al. (2015), Lawson et al. (2006); and Wilhelmsson et al. (2014). However, this was not consistent with finding reported by Amani et al. (2011). Attachment styles play an important role in individuals' psychological and social compatibility in different stages of life and prevent them from involvement in drug use and drug addiction (Nickerson & Nagle, 2005; Parker & Asher, 1987). Attachment styles, as a

developmental factor, play a decisive and important role in the development of personality tendencies and the formation of personality. In this regard, Carlson, & Sroufe (1995) considered organizational action of an attachment system very important in the integration of emotional, motivational, cognitive, and behavioral components. Williams, & Kelly (2005) showed that the adolescents with less interaction with their fathers and with insecure attachment show different behavioral problems, and this can act as the foundation for their tendency towards social harm, including drug use. It seems that persons with insecure attachment styles take refuge to substance abuse as a self-healing mechanism more than those with a secure attachment style to assuage their negative emotions, feelings, and their experiences of traumatic events. Lack of attention and lack of necessary care during childhood and adolescence, experienced deficiencies, loneliness and grief, and hostility and inability to communicate can lead a person to use drugs in later stages of life (Mehrabizadeh Honarmand, Shaheni Yeilagh, & Fathi, 2008). Lack of proper mother-child interaction, emotional deprivation in childhood, father's leniency in relation to the child's emotional needs during puberty, lack of reliance that meets his/her care and development needs, non-responsive parents, low trust and big distance between parents and children, numberless criticisms, and demanding expectations are all among the factors that may push the young people into drug use (Vakalahi, Harrison, & Janzen, 2000).

An underlying assumption of Bowlby's theory is that physical or psychological stresses automatically activate the childhood attachment system in adults. The perception of a possible or actual threat in adulthood leads to the activation of a childhood attachment system. When the attachment system is activated, depending on the type of attachment style in the individual, s/he seeks a remedy that is accessible and satisfies his/her security seeking. The attachment system is activated under various circumstances and conditions, including stresses and threats, and leads the person to find a solution tailored to his/her dominant attachment style (Ahrens, Ciechanowski, & Katon, 2012). Therefore, there is a high probability of turning to high risk behaviors, such as substance abuse (Kassel et al., 2007).

Young has proposed schema therapy to explain the pathology of parental communication, and its theoretical basis lies on some concepts and research in the realm of attachment theory, which has been suggested to act as a potential intermediary in parenting relationships, the onset of children's pathology, the creation of early maladaptive schema, and negative nuclear beliefs in children (Sheffild et al., 2005). Young argues that early maladaptive schemas are indeed the oldest cognitive components, unconditional beliefs and feelings about ourselves that are produced as a result of the interaction of the child's natural mood with his/her ineffective experiences with his parents, siblings, and peers during the early years of his/her life; and these non-conditional schemas increase the rate of vulnerability and neurotic forms as well as mental and psychological

problems (Young, 1994). In schema therapy, the main purpose is to weaken the early maladaptive schemas and, if possible, to create a healthy schema. In fact, the therapist helps the patient make healthier choices, dismiss maladaptive coping behaviors, and quit self-harm behaviors (Young et al., 2007).

Finally, in light of the results discussed in this study, it can be argued that schema therapy leads to the modification of early maladaptive schemas and insecure attachment styles in heroin dependent people; therefore, it can provide the basis for the improvement of drug dependence. Therefore, it is suggested that schema therapy interventions be included in therapeutic interventions of drug addicts. One of the limitations of the present research is that it was conducted only on male heroin addicts and only on a sample of treatment seekers. Thus, the generalizability of the results should be done with care and caution.

References

Ahmadi Gorji, M., Fati, L., Asgharnejad Farid, A., & Malakouti, K. (2008). Comparison of early maladaptive schemas between suicidal depressed patients and non-suicidal depressed patients and non-clinical population. *Advances in Cognitive Science*, 10 (40), 49-59.

Ahrens, K. R., Ciechanowski, P., & Katon, W. (2012). Associations between adult attachment style and health risk behaviors in an adult female primary care population. *Journal of Psychosomatic Research*, 72(5), 364-370.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. N. (2015). *Patterns of attachment: A psychological study of the strange situation*. Psychology Press.

Amani, A., Sanei Zaker, B., Nazari, A., & Namdari, P. (2011). The Effectiveness of Two Schema Therapy Approaches and Therapeutic Attachment in Students during Engagement Stage, *Journal of Family Counseling & Psychotherapy*, 1 (2), 171-191.

Ball, S. A. (1998). Manualized treatment for substance abusers with personality disorders: Dual focus schema therapy. *Addictive Behaviors*, 23(6), 883 -891.

Ball, S. A., Young, J. E. (2000). Dual focus schema therapy for personality disorders and substance dependence: case study results. *Cognitive and Behavioral Practice*, 7(3), 270 -281.

Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical psychology Review*, 8(1), 77-100.

Beck, A. T., Steer, R. A., Brown, G. K. (1996). *Manual for the beck depression inventory-II*. San Antonio, TX: Psychological Corporation.

Beck, A.T, Wright, F.D, Newman, C. F, & Liese, B. S. (1993). *Cognitive therapy of substance abuse*. New York, NY: Guilford Press.

Basharat, M., Ghafouri, B., & Rostami, R. (2007). Comparison of attachment styles between patients with substance abuse disorders and non-addicted individuals. *Journal of Research in Medical Sciences*, 31 (3), 265-271.

Besharat, M. A. (2011). Development and validation of Adult Attachment Inventory. *Procedia-Social and Behavioral Sciences,* 30, 475-479.

Brummett, B. R. (2007). *Attachment style, early maladaptive schemas, coping selfefficacy, therapy alliance and their influence on addiction severity in methadone-maintenance treatment*. New York: Fordham University Press.

Carlson, E. A., & Sroufe, L. A. (1995). Contribution of attachment theory to developmental psychopathology. In: D. Cicchetti, D. J. Cohen Editors. *Theory and methods*. New Jersey, N. J.: Wiley, 135-138.

Cecero, J., Nelson, J., & Gillie, J. (2004). Tools and Tenets of schema Therapy: Toward the construct validity of Early maladaptive schema Questionnaire – Research Version (EMSQ – RV). *Clinical Psychology and Psychotherapy,* 11, 344- 357.

Clark, D. A., Beck, A. T., & Alford, B. A. (1999). *Scientific foundations of cognitive theory and therapy of depression.* New York: John Wiley and Sons. Inc.

Cramer, P. (2003). Personality change in later adulthood is predicted by defense mechanism use in early adulthood. *Journal of Research in Personality*, 37(1), 76–104.

Dolan, S. L., Martin, R. A., & Rohsenow, D. J. (2008). Self-efficacy for cocaine abstinence: Pretreatment correlates and relationship to outcomes. *Addictive Behaviors,* 33(5), 675-688.

Ghaderi, F., Kalantari, M., & Mehrabi, H. (2016). Effectiveness of group schema therapy in modifying early maladaptive schemas and reducing symptoms of social anxiety disorder, *Quarterly of Clinical Psychology Studies,* 6 (24), 1-28.

Giesen-Bloo, J., van Dyck, R., Spinhoven, P., Van Tilburg, W., Dirksen, C., Van Asselt, T., … Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder: Randomized trial of schema-focused therapy vs transference-focused psychotherapy. *Archives of General Psychiatry*, 63(6): 649-658.

Hasin, D., Liu, X., Nunes, E., McCloud, S., Samet, S., & Endicott, J. (2002). Effects of major depression on remission and relapse of substance dependence. *Archives of General Psychiatry*, 59(4), 375-380.

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524.

Huibers, M. (2011). CS05-02-Schema therapy for chronic depression. *European Psychiatry*, 26(1), 1783. DOI: 10.1016/S0924-9338(11)73487-3.

Ilgen, M., Jain, A., Kim, H. M., & Trafton, J. A. (2008). The effect of stress on craving for methadone depends on the timing of last methadone dose. *Behaviour Research and Therapy*, 46(10), 1170-1175.

Jahangiri, M., Salehi, M., Ashayeri, H., & Pasha Sharifi, H. (2015). The Effect of Schema Therapy on the Regulation of Early Maladaptive Schemes in Patients with Resistant Obsessive Compulsive Disorders. *Journal of Psychology and Psychiatry*, 2 (2), 13-27.

Karami, J. & Jashnpour, M (2017). Comparison of emotional attachment styles and locus of control between drug dependent people and normal people. *Quarterly Journal of Social Health and Addiction*, 4 (15), 105-122.

Kassel, J. D., Wardle, M., & Roberts, J. E. (2007). Adult attachment security and college student substance use. *Addictive Behaviors*, 32(6), 1164-1176.

Kassel, J.D., Wardle, M., & Roberts, J.E. (2007). Adult attachment security and college student substance use. *Addictive Behaviors*, 32, 1164–1176**.**

Kassel, J. D., Wardle, M., & Robert, J. E. (2014). Adult attachment security and college student substance. *Addictive Behaviors*, 32, 1164 -1176.

Kheiri, T., Abdollahi, M., & Shahgholian, M. (2013). Comparison of emotional intelligence, attachment style and self-esteem between addicted and non-addicted people. *Quarterly Journal of Health Psychology*, 2 (3), 69-81.

Khosravi Farsani, A., Khezrimoghadam, N. & Abedi, M. (2015). Evaluating the effectiveness of schema therapy training in attachment type related to the mothers of preschool children in Isfahan 5th discrete from 2012 to 2013. *Iranian Journal of Positive Psychology*, 1(2), 79-84.

Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59(1), 135-146.

Lawson, D. M., Barnes, A. D., Madkins, J. P. & Francois-Lamonte, B. M. (2006).Changes in male partner abuser attachment styles in group treatment. *Journal of Psychotherapy: Theory, Research, Practice, Training,* 43(2), 232- 237.

Mansoori Jalilian, A. & Yazdanbakhsh, K. (2014). Prognosis of drug abuse tendency based on early maladaptive schemes and perfectionism in university students. *Quarterly Journal of Research on Addiction,* 8 (32), 51-62.

McNally, A. M., Palfai, T. P., Levine, R. V., & Moore, B. M. (2003). Attachment dimensions and drinking-related problems among young adults: The mediational role of coping motives. *Addictive Behaviors*, 28(6), 1115-1127.

Mehrabizadeh Honarmand, M., Shaheni Yeilagh, M., & Fathi, K. (2008). Depression, sensation seeking, aggression, attachment styles and socioeconomic status as drug addiction predictors of drug use among adolescents of Ahvaz city. *Journal of Educational Sciences and Psychology*, 3 (1), 153-178.

Mor, N., & Winquist, J. (2002). Self-focused attention and negative affect: a meta-analysis. *Psychological Bulletin*, 128(4), 638-662.

Nickel, R., & Egle, U.T. (2006) Psychological defense styles, childhood adversities and psychopathology in adulthood. *Child Abuse Neglect*, 30(2), 157-170. DOI: 10.1016/j.chiabu.2005.08.016.

Nickerson, A. B., & Nagle, R. J. (2005). Parent and peer attachment in late childhood and early adolescence. *The Journal of Early Adolescence*, 25(2), 223-249.

Oveisi, A. (2012). Comparison of early maladaptive schemas between opioid dependent and non-dependent individuals in Zahedan. *Journal of Fundamentals of Mental Health*, 14 (54), 164-171.

Paulk, A., & Zayac, R. (2013). Attachment style as a predictor of risky sexual behavior in adolescents. *Journal of Social Sciences*, 9(2), 42-47.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102(3), 357-389.

Renner, F., Lobbestael, J., Peeters, F., Arntz, A., & Huibers, M. (2012). Early maladaptive schemas in depressed patients: Stability and relation with depressive symptoms over the course of treatment. *Journal of Affective Disorders*, 136(3), 581-590.

Rooke, S. E., Hine, D. W., & Thorsteinsson, E. B. (2008). Implicit cognition and substance use: A meta-analysis. *Addictive Behaviors*, 33(10), 1314-1328.

Rozbehi, M., Rezaei, A., & Alipour Dolatabad, A. (2017). Comparison of the effectiveness of group Acceptance and Commitment Therapy and schema therapy in early maladaptive schemas among addicted people in Shiraz hospitals. *Journal of Behavioral Sciences,* 15 (3), 339-346.

Shaghaghy, F., Saffarinia, M., Iranpoor, M., Soltanynejad, A. (2011). The Relationship of Early Maladaptive Schemas, Attributional Styles and Learned Helplessness among Addicted and Non-Addicted Men. *Scientific Research Journal*, 3(1-2), 45-52

Sheffield, A., Waller, G., Emanuelli, F., Murrey, J. & Meyer, C. (2005). Link between parenting and core belief: preliminary psychometric, validation of young parenting inventory. *Cognitive Therapy and Research*, 29(6), 787-802.

Stopa, L., Thorne, P., Waters, A., & Preston, J. (2001). Are the short and long forms of the Young Schema Questionnaire comparable and how well does each version predict psychopathology scores? *Journal of Cognitive Psychotherapy*, 15(3), 253-272.

Tajikzadeh, F., Zare, I., Naziri, G., & Afshari, R. (2015). The effectiveness of group schema therapy in early maladaptive schemas in men under methadone maintenance. *Quarterly Journal of Individual Differences and Personality*, 4 (7), 1-23.

Thorberg, F. A., & Lyvers, M. (2010). Attachment in relation to affect regulation and interpersonal functioning among substance use disorder in patients. *Addiction Research & Theory*, 18(4), 464-478.

Vakalahi, H. F., Harrison, R. S., & Janzen, F. V. (2000). The influence of family-based risk and protective factors on adolescent substance use. *Journal of Family Social Work*, 4(1), 21-34.

Williams, S. K., & Kelly, F. D. (2005). Relationships among involvement, attachment, and behavioral problems in adolescence: Examining father's influence. *The Journal of Early Adolescence*, 25(2), 168-196.

Wilhelmsson Göstas, M., Wiberg, B., Brus, O., Engström, I. & &Kjellin, L. (2014). *Changes in attachment styles and interpersonal problems after different forms of psychotherapy*. PhD Thesis. Sweden: Orebro University.

Young, J. E. (1990). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota, FL: Professional Resource Press.

Young J., Klosko, J., & Weishaar, M. (2005). *Schema Therapy (A Guide for Clinical Practitioners)*. Translated by Hamidpour, H., & Andouz, Z (2007). Tehran: Arjomand Publication.

Young, J. E. (1994). *Cognitive therapy for personality disorders: A Schema focused approach*. Sorasota, Proffetional resource press.

Yousefi, N., & Shirbagi, N. (2010). Validating the Young Early Maladaptive Schema Questionnaire (YEMSQ) among Students. *Iranian Journal of Psychiatry and Behavioral Sciences*, 4(1), 38-46.